

WHAT IS CLAIMED IS:

1. A method for inspecting an ignition device for an internal combustion engine having a combustion chamber, the device including an ignition plug for discharging in the combustion chamber, an ignition coil for supplying a high voltage to the ignition plug, and a cylindrical ignition device housing for housing the ignition plug and the ignition coil, the ignition device further including a ground electrode that is fixed to the ignition device housing, and a portion of the ignition device housing functions as an outer peripheral core of the ignition coil, wherein the device is inspected by measuring a voltage generated in the ignition coil, comprising:

preparing a cylindrical inspection housing for an inspection of the ignition device;

inserting the ignition coil in the inspection housing;
and

measuring the voltage generated in the ignition coil that is housed in the inspection housing, wherein

the inspection housing functions as a housing substituted for the ignition device housing and an outer peripheral core of the ignition coil during the inspection, and

the measuring is performed using the inspection housing that differs from the ignition device housing especially in that a ground electrode is not fixed to the inspection housing.

2. The method according to claim 1, wherein the inserting

step further includes inserting the ignition plug in the inspection housing.

3. An inspection device for an ignition device for an internal combustion engine having a combustion chamber, the ignition device including an ignition plug for discharging in the combustion chamber, an ignition coil for supplying a high voltage to the ignition plug, and a cylindrical ignition device housing for housing the ignition plug and the ignition coil, the ignition device further including a ground electrode that is fixed to the ignition device housing, and a portion of the ignition device housing functions as an outer peripheral core of the ignition coil, comprising:

a cylindrical inspection housing that functions as a housing substituted for the ignition device housing and an outer peripheral core of the ignition coil during the inspection; and

a voltage measuring means for measuring a voltage generated in the ignition coil in a condition that the ignition coil is housed in the inspection housing.

4. The inspection device according to claim 3, wherein the inspection housing is sized so that a distance is provided between an end thereof adjacent to a tip of the ignition plug and the tip of the ignition plug for preventing a discharge to occur between the inspection housing and the ignition plug even when the voltage generated in the ignition coil is

applied to the ignition plug at a maximum level.

5. The inspection device according to claim 4, wherein the distance is decided based on atmospheric pressure and temperature at which the voltage generated in the ignition coil is measured.

6. The inspection device according to claim 3, wherein the inspection housing is formed from the same material and in the same shape as a portion of the ignition device housing that functions as an outer peripheral core of the ignition coil.

7. A method for inspecting an ignition device for an internal combustion engine having a combustion chamber, the device including an ignition plug for discharging in the combustion chamber, an ignition coil for supplying a high voltage to the ignition plug, and a cylindrical housing for housing the ignition plug and the ignition coil, and a portion of the housing functions as an outer peripheral core of the ignition coil, wherein the device is inspected by measuring a voltage generated in the ignition coil, comprising:

maintaining the housing ungrounded;

providing electrical isolation between the ignition plug and the housing by maintaining a distance between a tip of the ignition plug and a housing end adjacent to the tip for preventing an electrical discharge; and

measuring the voltage generated in the ignition coil

housed in the housing.